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October 21, 1992

ORIGINAL  
FILE

Our File: 04976/002001

HAND DELIVER

Ms. Donna R. Searcy  
Office of the Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Room 222  
Washington, D.C. 20554

Re: Comments of Cray Research, Inc.  
ET Docket No. 92-152

Dear Ms. Searcy:

Enclosed for filing on behalf of Cray Research, Inc.  
please find an original and five (5) copies of comments in the  
above-captioned Notice of Proposed Rule Making proceeding.

If you have any questions with regard to the enclosed  
please do not hesitate to contact the undersigned.

Very truly yours,

  
Terry G. Mahn

/TGM  
Enclosures

cc: Cray Research, Inc.

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BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

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OCT 21 1992

Federal Communications Commission  
Office of the Secretary

In the Matter of )

Revision of Part 15 )  
of the Rules to Harmonize )  
the Standards for Digital )  
Devices with International )  
Standards )

ET Docket No. 92-152

COMMENTS OF CRAY RESEARCH, INC.  
TO NOTICE OF PROPOSED RULE MAKING

Cray Research, Inc. ("CRI"), through its attorneys, submits these comments to the above-captioned Notice of Proposed Rule Making ("NPRM"). CRI supports the Commission's efforts in this proceeding to harmonize U.S. regulatory standards for EMC compatibility of digital devices with those adopted by the international community. CRI believes this docket makes substantial progress in this regard but notes several issues, discussed more fully below, that are in need of further clarification and resolution.

DISCUSSION

CRI is the leading worldwide manufacturer of supercomputer systems with installations in 23 countries. CRI is abundantly aware of the regulatory problems confronting large system manufacturers through extensive experience with EMC compliance on both the domestic and international levels. CRI has

been an active participant in virtually all Commission proceedings over the last 10 years involving the development and implementation of EMC test procedures for digital devices. For these reasons, CRI believes that it is uniquely situated to comment on the Commission's proposals in this docket as they pertain to large system manufacturers.

At the onset, CRI wishes to applaud the Commission's considerable efforts to harmonize its EMC standards with those developed by IEC/CISPR. CRI submits that the harmonization of test procedures and limits are vital to all U.S. manufactures who desire to compete in international markets. CRI believes, and has noted in past Commission proceedings, that disparate regulatory systems impose redundant and sometimes conflicting compliance obligations on manufacturers, which raise the cost and availability of equipment to end users and stifle competition in international markets. Accordingly, CRI believes the Commission has taken an important step in the right direction in its attempts to harmonize U.S. standards with those of CISPR 22.

In the NPRM, the Commission has requested comment on whether the CISPR 22 measurement procedures should be used to establish compliance with the CISPR 22 limits or whether only the Commission's procedures should be accepted. CRI feels very strongly that if harmonization is to occur, the Commission must allow the CISPR 22 test procedures to be used for measuring

emissions below 1000 MHz. For emissions above this limit, Commission procedures should be used; however, should CISPR eventually adopt limits above 1000 MHz, CRI submits that CISPR procedures should then apply. In this fashion and only in this fashion, will costly redesign and duplicative testing be avoided. Countries which adhere to CISPR 22 cannot be expected to understand nor necessarily accept the Commission's measurement procedures in place of those contained in IEC/CISPR regulations. A Commission decision not to recognize CISPR 22 testing, therefore, would merely preserve the status quo and undermine the goals of this proceeding "to reduce design and testing burdens and costs to manufacturers."

CRI wishes also to point out the differences that exist with the in-situ measurement procedures set forth in CISPR 22 from those in the U.S., which CRI supports. Under Commission rules, systems which cannot be measured at test sites due to physical size or customer requirements may be tested at a user's location. Although compliance is then generally established only for that installation, if the same or similar equipment can be measured at three representative locations the system will be considered verified for all sites. CISPR 22 takes a slightly different approach toward in-situ testing by not recognizing the "3-site" verification allowance used in the U.S. and by permitting testing to be done at the boundary of the user's premise or 30 meters, whichever is greater. CRI believes that the Commission must continue to recognize the "3-site" verification rule for large

systems even under the CISPR 22 test procedures. CRI believes, in this regard, that compliance testing at three sites involves sufficient variation of equipment and environmental factors to provide the necessary assurance that the system will not cause harmful interference in other similar locations. If U.S. manufacturers are to avoid unnecessary and duplicative testing of large systems the "3-site" verification rule should be clearly established by the Commission in this docket.

Finally, CRI supports the Commission's proposal to amend the Part 15 Rules to conform to existing measurement procedures by permitting a relaxation of limits for broadband powerline conducted emissions when the difference between emissions levels measured in quasi-peak and average is 6 dB or more. CRI submits that a 13 dB allowance for powerline conducted limits provides a needed measure of relief for systems where broadband emissions are present.

#### CONCLUSION


For the reasons provided, CRI supports the Commission's efforts to harmonize its EMC compliance rules with CISPR 22. CRI believes that the CISPR 22 test procedures should be permitted to be used to establish compliance with CISPR 22 limits and that the Commission should continue to recognize the "3-site" verification test for large systems measured in-situ. Further, the Commission's proposal to amend Part 15 allows for conducted broadband emissions

is necessary to conform the Commission's own Rules with its test practices.

Respectfully submitted,

**CRAY RESEARCH, INC.**

October 21, 1992



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